CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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REPORT

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1. The Rulon chemical plant was located about 300 meters north of the double track Dzerzhinsk (56-15'N/43-24'E) -Gorkiy (56-20'N/44-00'E) railroad line, opposite the Rulon stop which is 11 km. east-northeast of the Dzerzhinsk main railroad station. From the Igumnovo (56°16'N/43°37'E) marshaling yard, located west-southwest of the plant, a railroad spur led to the western edge of the plant, where it branched into several tracks. A field railway track allegedly led from the plant in a north-northwestern direction to a peat yard about 3 km. from the plant. The workers' settlement of Voroshilovskiy Uchastok, which consisted of several three-story wooden huts, adjoined the southwestern corner of the plant area. A part of the northeastern section of the plant area was still covered with trees. Hard-surfaced roads (feste Strassen) led from the plant, via the workers' settlement and the Rulon stop, to the Dzerzhinsk-Gorkiy road, some sections of which were asphalted. A streetcar route led from the Rulon stop to the center of the city of Dzerzhinsk.

2. The name of the plant was Khimicheskiy Zavod Rulon (Rulon Chemical Plant). At first the plant was referred to as the aniline dye plant, and after 1942 it was called either the Rulon plant or Plant No. 146. The construction of some installations was started in 1938, and these installations were put into operation in 1940, 1942, and 1943. In mid-1947, the construction of a new section, which was temporarily designated Plosh, was started in the southwestern corner of the plant area. Production had not started in this new section as of late 1949.

3. The Rulon plant, which was entirely enclosed by a concrete wall, covered an area of about 2.5 square km. The northern half of the plant area and about one-fourth of the eastern section were practically vacant. The plant was separated into three manufacturing departments which operated more or less independently. The two old departments included the plexiglass section, the safety glass section, and the installations built during the war to produce chemical warfare agents and to load these agents into bombs and projectiles. The third department was the newly constructed department in the southwestern section of the plant area, which was referred to as Plosh. The new department, which consisted of 11 buildings, one tank installation, and one cooling tower, was almost completed, but had not been put into operation as of the fall of 1949. It was equipped with installations dismantled in Germany, and included equipment from the Leuna Works. The plant also contained large storehouses for raw materials and finished products, and several tanks. Other buildings housed

administration offices, workshops and minor auxiliary installations.

4. The plant was supplied with electricity from the TEFs thermal power plant, located about 1 km. south of the plant, which, together with the municipal power plant in Gorkiy and the large central power station in Balakhna (56028'N/43036'E), served the industrial installations in Dzerzhinsk. Workshops in the Plosh department were lighted from the outside by searchlights. The TEFs power plant also supplied steam for heating, through underground pipe lines, 40 cm. in diameter. This steam had a pressure of seven atmospheres.

5. The Rulon plant processed naphthalene ($C_{10}H_8$), naphthol ($C_{10}H_7OH$), sulphuric acid (H_2SO_4), alcohol (C_2H_5OH), ether ($(C_2H_5)_2O$), acetone (CH_3COCH_3), acetic acid ($CH_3 - COOH$), and calcium carbide (CaC_2), as well as glass. Prior to the fall of 1949, the main products produced in the plexiglass department were plexiglass plates of various dimensions, including colored plates; large quantities of aircraft cockpits and small utensils. During the war, the chemical warfare agents department produced cyanide and bromine which were loaded into projectiles. Bacterial growth was also cultured and placed in special containers in this department. Several sources agreed that chemical warfare agents were produced by the Rulon plant until the fall of 1949. However, the type of chemical warfare agents produced was not known. No information was available as to the ultimate type of production planned for the Plosh department nor as to the end use of the raw materials unloaded in the area of that department. **

6. Like all chemical plants in Dzerzhinsk, the Rulon plant was directed by one Kaganovich (fnu), who allegedly was a relative of the well-known Soviet politician of the same name. No other officials of the plant were identified. By the end of the war, about 3,000 workers, of whom 60 percent were women, 20 percent men, and 20 percent juveniles, were employed in the production departments. In late 1949, there were about 5,000 employees, including construction workers. No German specialists were reported to be employed in the Rulon plant.

7. The entire plant area was enclosed by a high wall topped with barbed wire. Inside the plant, several buildings and departments were separately enclosed by barbed-wire fences. The plant was guarded by military sentries. Fire extinguishers were available, but the fire fighting equipment was quite primitive.

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[redacted] Comment. For layout sketch of the plant, see Annex 1, which is based on information from PWs and [redacted] For details of the Plosh department, see Annex 2, based on information from the PWs. The designation "Plosh" is an abbreviation for "Ploshchadka", which means building site. In view of the many pipe lines connecting the workshops of the Plosh department to the tank installations in the northwestern sections of the plant in which alcohol, ether, acetic acid, and acetone are stored, and also in view of the descriptions given of a number of installations in the Plosh department, it is fairly definitely believed that plastics are made there. Based on the descriptions of the tanks, which presumably are distillation columns, installed in many of the buildings of the Plosh department, it is believed that polymers from an alcohol base are produced there, although much of the alcohol may be used as a solvent. The statements that equipment dismantled from the Leuna Works is installed in this plant indicate that one or more plastics are produced by German processes, probably by the I.G. Farben method.

[redacted] Comment. [redacted] the installations after the war were unable to furnish detailed information concerning the departments producing chemical warfare agents because the buildings used for this purpose which were fenced in and closely guarded, were off-limits to the IWs. There were numerous indications that chemical warfare agents were still being produced as of late 1949, although at a far lower rate than during the war. Especially significant is the fact that the buildings used for the production of chemical warfare agents were not even slightly modified after the war. Soviets captured in 1944, who had worked in the Rulon plant, stated that the plant processed hydrocyanic acid and cyanides into chemical warfare agents. In addition, bromide, particularly mustard gas bromide $(CH_2Br-CH_2)_2S$, benzyl bromide cyanide ($C_6H_5CHBrCN$ - American designation CA), and bromic cyanide (BrCN), were produced and loaded into projectiles. Ampules were also filled with poisonous agents and bacterial cultures. There is no information available as to whether, and by what methods, coal tar dyes are made in this plant. However, in view of the original designation of "aniline dye plant", together with the fact that large quantities of naphthalene and, according to one IW, naphthol, were processed in this plant, it appears that aniline dyes, or the intermediate products thereof, were produced, at least to a limited extent.

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Legend:

1. Communist Party building.

2. Tank, use unknown.

3. Canteen and mess hall.

4. Apartment houses.

5. Administration and office building and a school for assistant chemists (Laboranten).

6. Entrance gates, with guardhouses and check points.

7. Concrete wall, 2 meters high, with barbed wire.

8. Wooden fence, with barbed wire, built in May 1948.

9. Large workshop, still used in mid-1949 as billets for PWs from PW Camp No. 7117/7.

10. Small barracks for guards.

11. Former workshop, three and four-stories, used as PW Camp No. 7117/7.

12. Workshop, use unknown.

13. Former workshop, with a forge in one part of the building. The rest of the building was used for storage.

14 to 27. The new section of the plant referred to as the Plosh department.

14. Central steam heating station.

15. Building No. 105.

16. Building No. 104.

17. Building No. 108, a small structure housing two tanks, each with a capacity of 80 cubic meters, and a machine shop.

18. Building No. 102, equipped with four cylindrical tanks, each about 14 meters high and 2 meters in diameter, with walls about 2 cm. thick. These tanks were made of several welded rings, allegedly of chrome nickel steel and were reinforced at two points by riveted, flanged rings. These tanks had steel frames and were mounted on concrete bases. Flanged pipes were fastened to the top and bottom of these tanks and there were several pipe sockets on the tops of the tanks. The tanks were filled to capacity with Raschig rings made of porous porcelain. There were several manholes and large, round, glass windows in the tanks. On the lower part of the tanks were plates to which pressure gauges and hand-wheels for valves were attached. On the walls near the tanks were several galleries with rails at different levels.

19. Building No. 101. The various sections of this building varied in height.

The middle section was equipped with six columns like those in Building No. 102. The northern and southern sections housed several laboratories. There were two chimneys in the middle section. Because of the possibility of explosions, the roofs of the building were of very light construction. In the winter of 1940, an explosion scattered various metal parts all over the neighboring area. After the explosion, there was a heavy odor of ether in the vicinity of the building.

20. Building No. 103, with annex. In the southern section were six columns of the same type as those in Building No. 102. In the northern section, which was five stories high, there were four large drums on the first floor, and several horizontal drums, about 2 meters high and about 1 meter in diameter, on the fourth and fifth floors.

21. Small building, housing the central distributing station for the network of pipes coming from the new pumphouse and from Building No. 118 to the workshops and tank installations in the Plosa department. There were several centrifugal pumps in this building. The pipes between the various buildings in the Plosa department were tied together and were laid on transverse girders, supported by high concrete pillars and steel towers.

22. Four tank installations, surrounded by a high embankment. Each tank has a capacity of about 200 cubic meters. In mid-1940, walls were built around two tanks.

23. Barbed wire fence.

24. Building No. 104. There were three large tanks, lined with lead and connected with the cooling tower by pipe lines. The floor around the tanks was flagged with lead slabs and the walls inside the building were lined with sheet lead to a height of about 1 meter.

25. Laundry (sic).

26. One story building, with deep basement. The building was equipped with six turbine-shaped machines or pumps, a number of which extended deep into the basement. The installation was connected with the central steam heating station by a thick steam pipe. On the outside of each of the two longer sides of the building was a round tank, which was coated with concrete or insulating material. A condensation pipe led to the cooling tower.

27. Water-cooling tower. A wood structure, 36 meters high and 20 meters in diameter, on a concrete base, 12 meters high.

28 a. Sawmill.

28 b. Wood-drying room.

29 a. Wood-working shop.

29 b. Storage shed.

30. Building No. 111, use unknown.

31. Storehouse.

32. Building No. 112, consisting of several three-story sections, with sheet metal chimneys and equipped with several lightning rods.

33. Building No. 113, housing work rooms, laboratories, and a dispensary. A round tank, 6 meters high, 1.8 meters in diameter, with asbestos insulation, was located south of the building. Several copper pipe coils, heated with steam, were installed in the tank.

34. Building No. 114, with two low wooden towers. There were many narrow drums set up in one large room. There were bundles of pipes in several of the drums, and these were removed from time to time to be cleaned. The walls of the room were tiled. A pump installation with a device for filling gas bottles was located in the annex building. Several insulated cooling pipes were installed there. Dull whitish vapors, which made one cough, emitted from sheet metal chimneys. All the workers of this department wore protective rubber clothing. Those working in a detached room in the eastern section of the building also wore gas masks.

35. Building No 115. Section "a" was two stories high with a small laboratory located on the second floor. Section "b" was four stories high. There were three tanks, about 6 meters high and 1.8 meters in diameter, lined with lead, on the first floor. There were also several insulated cooling pipes. The workers in this building wore protective clothing.

36. Roundhouse and repair shop for the locomotives of the plant.

37. Billets and canteen for the railway personnel.

38. Warehouse for building materials.

39. Former boilerhouse, used as a forge in 1949.

40. Building, with built-in compressors or piston pumps. There were several transformers in a detached room in the western section.

41. Several warehouses for calcium carbide, dyes, lubricants, and building materials.

42. Former workshop, now used to manufacture concrete slabs and other building materials.

43. Department No. 11, used to manufacture plastics. This was a fairly old installation. There was a tank outside the east wall.

44. Before the end of the war, this was Department No. 1 where hydrocyanic acid was produced. The present use of this building was unknown.

45. Before the end of the war, this was Department No. 2 where a hydrocyanic compound (Blausaeureverbindung) "B-27" was produced. The present use of this building was not known.

46. Before the end of the war, this building was used for cleaning and pre-treatment of the bodies of projectiles and bombs. In mid-1949, fairly large quantities of projectiles for rocket launchers and 120-mm. and 40-mm. (sic) mortar ammunition were still stored in and around the building.

47. Department No. 3. Prior to the end of the war, hydrocyanic warfare agents were loaded into projectiles and bombs in this department. The building is still surrounded by a triple barbed wire fence. Large sheet metal chimneys emit a white vapor. There is an odor of garlic or horseradish in the area around the building. On the northeast side of the building were three tanks, each with a capacity of 9 cubic meters, used to store chemical warfare agents. The building was closely guarded. The storage tanks are not indicated on the sketch.

47 a. Billets for the guards of Department No. 3.

48. Department No. 13, used in producing the hydrocyanide compounds "R-178" and "R-187" during the war. The present use of this building was not known.

49. Department No. 14, used for the production of intermediate plastic products and in the processing of naphthalene and sulphuric acid.

50. Sulphuric acid tank.

51. Department No. 8, used for the production of intermediate plastic products.

52. Department No 12, used in the production of plexiglass and as a warehouse for raw materials and semi-finished goods. Presses and rolling mill trains were allegedly installed in one section of the building.

53. Two warehouses and shipping department for finished plexiglass goods and polished panes of safety glass.

54. Department No. 7. Small utensils of plexiglass and safety glass were produced here. The panes of glass trucked in from the direction of Dzerzhinsk were pasted together in several layers by means of a plexiglass-like solution.

55. Warehouse of Department No. 7 for raw materials and finished goods. The buildings of Department No. 7 were guarded separately.

56. Washrooms and dressing-rooms.

57. Pumphouse.

58. Six warehouses for raw materials, solvents, and plastics.

59. Station for loading tank cars. After mid-1949, a nutlike structure was allegedly built over the installation.

60. Building No. 118, a shed built over a railroad track equipped with about 20 pipes located on each side of the track, used to fill tank cars.

61. Large tank.

62. New pumphouse for Building No. 118, equipped with six pumps and connected with the central distributing station by a pipe line.

63. Old pumphouse for the alcohol and solvents yard, equipped with piston pumps.

64. Alcohol and solvents yard, with four tanks, about 5 meters high and 12 meters in diameter, with walls about 5 mm. thick. The tanks were on concrete bases and were insulated with glass wool.

65. Alcohol and solvents yard, equipped with 16 tanks, about 5 meters high and 4 meters in diameter, which were sprinkled with water in summer. The installation is surrounded by an embankment. Only eight tanks are indicated in the sketch.

66. Unloading installation of the alcohol and solvents yard, item No. 64.

67. New buildings called **"Tarniy Tsekh"** (Tarny, derived from tare, means packing), used in the production of packing material and equipped with a sawmill.

68. Alcohol yard, equipped with three round tanks, and one building in which handgrenades were filled during the war.

69. Sewerage plant.

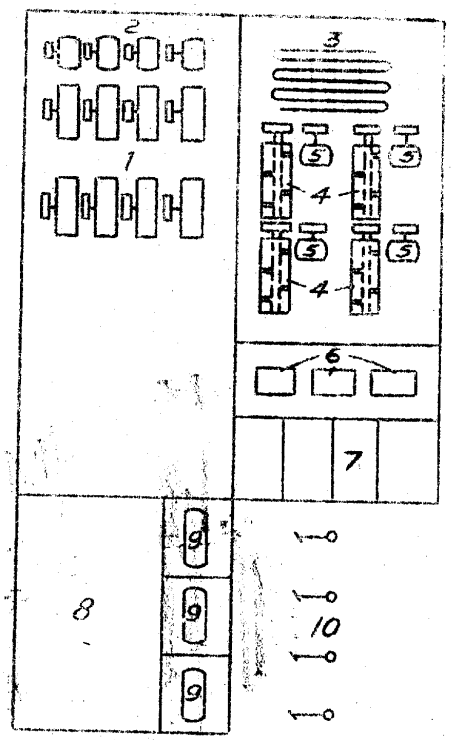
70. Hard-surfaced roads.

71. Railroad spur system.

72. Lightning rods.

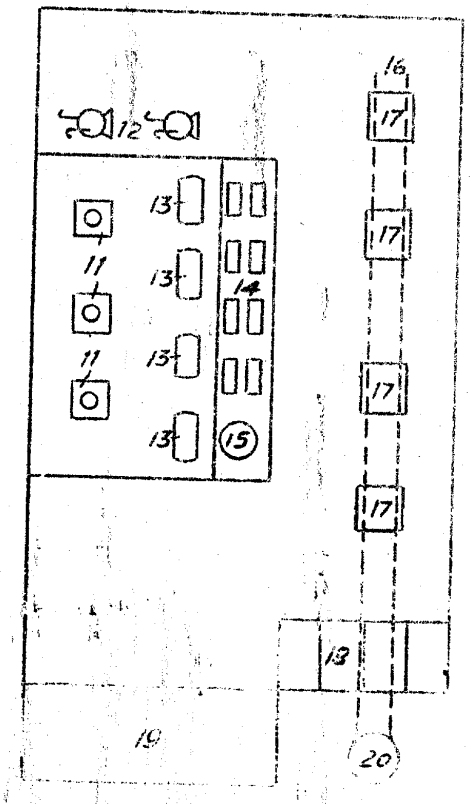
The unnumbered installations could not be identified.

Legend: see next page



building No. 105

Buildings No. 105 and 104
of the New Plosh Compound



building No. 104

not to scale

Legend:

Building No.105.

1. Eight Soviet-made, four-stage compressors.
2. Electric motors for the compressors.
3. Pipe coils.
4. Four stirrers or spiral mixers (Mischschnecken).
5. Four electric motors for the stirrers.
6. Cooling plant, with several rectangular brick basins, insulated with peat and asbestos slabs.
7. Offices.
8. Room, housing the electric switchboards.
9. Several transformers.
10. Steel pipe towers, each about 10 meters high.

Building No 104.

11. A high workshop allegedly equipped with three cylindrical tanks, each about 14 meters high and 2 meters in diameter, with walls about 2 cm. thick. According to the inscriptions on some of the columns, they came from the Leuna Works. These tanks were made of several welded rings, allegedly of chrome nickel steel, and were reinforced at two points by riveted, flanged rings. These tanks had steel frames and were mounted on concrete bases. Flanged pipes were fastened to the top and bottom of these tanks, and there were several pipe sockets on the tops of the tanks. The tanks were filled to capacity with Raschig rings made of porous porcelain. There were several manholes and large round glass windows in the tanks. On the lower part of the tanks were plates to which pressure gauges and hand-wheels for valves were attached. On the walls near the tanks were several galleries with rails, at different levels.
12. Several centrifugal pumps.
13. Four horizontal drums, each about 4 meters long and 2.2 meters in diameter.
14. Eight piston pumps, with small drums on top.
15. Drums, about 3 meters high and 4 meters in diameter.
16. Flue leading to the smokestack.
17. Four furnaces, built over the chimney flue. They were made of brick and were supported by steel frames.
18. Several small rooms, furnished as laboratories and equipped with measuring instruments on platforms.
19. Room, equipped with several electric switchboards.
20. High smokestack.

LEGEND : see next page

CHEMICAL PLANT RULON No 148 IN DZERZHINSK

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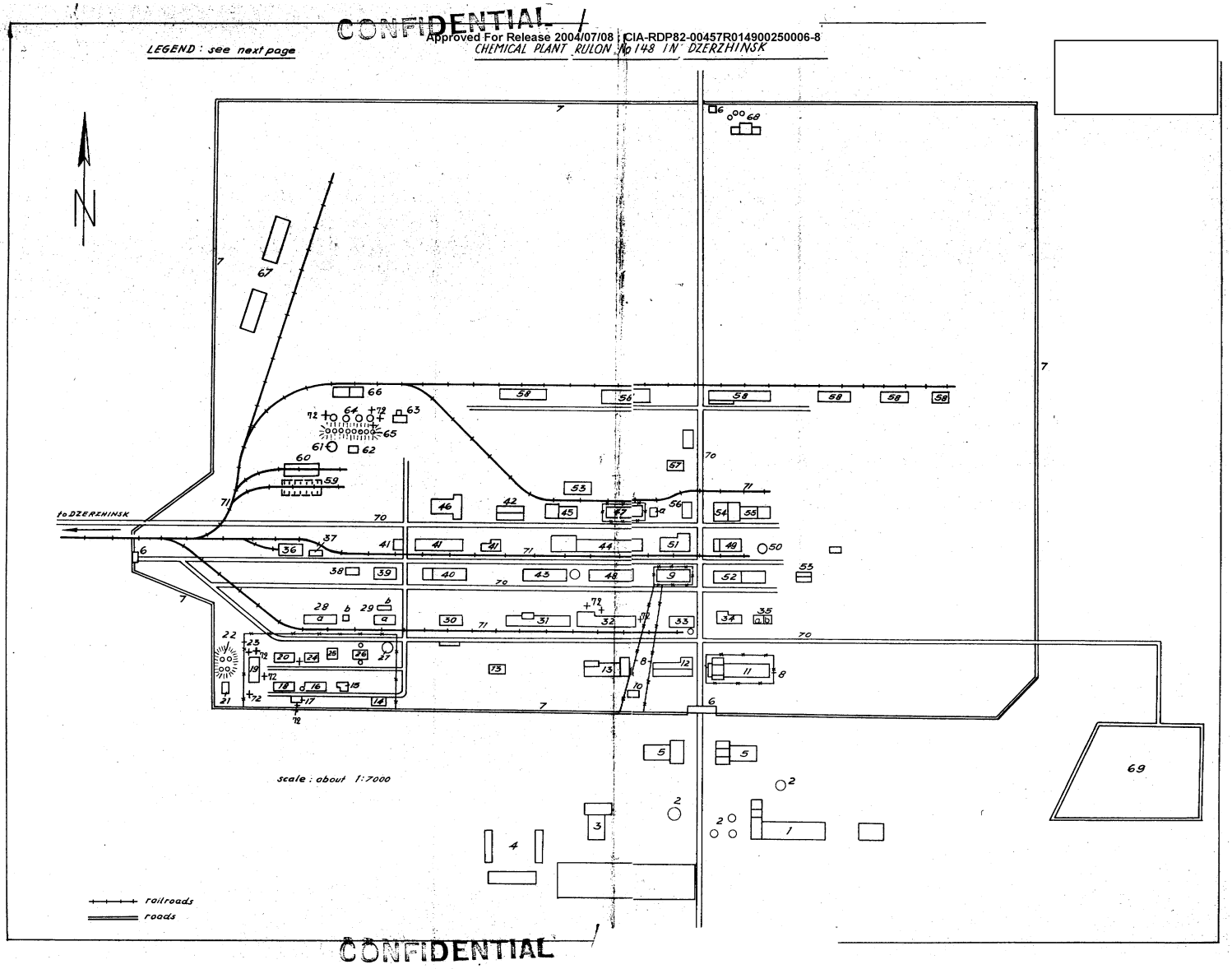

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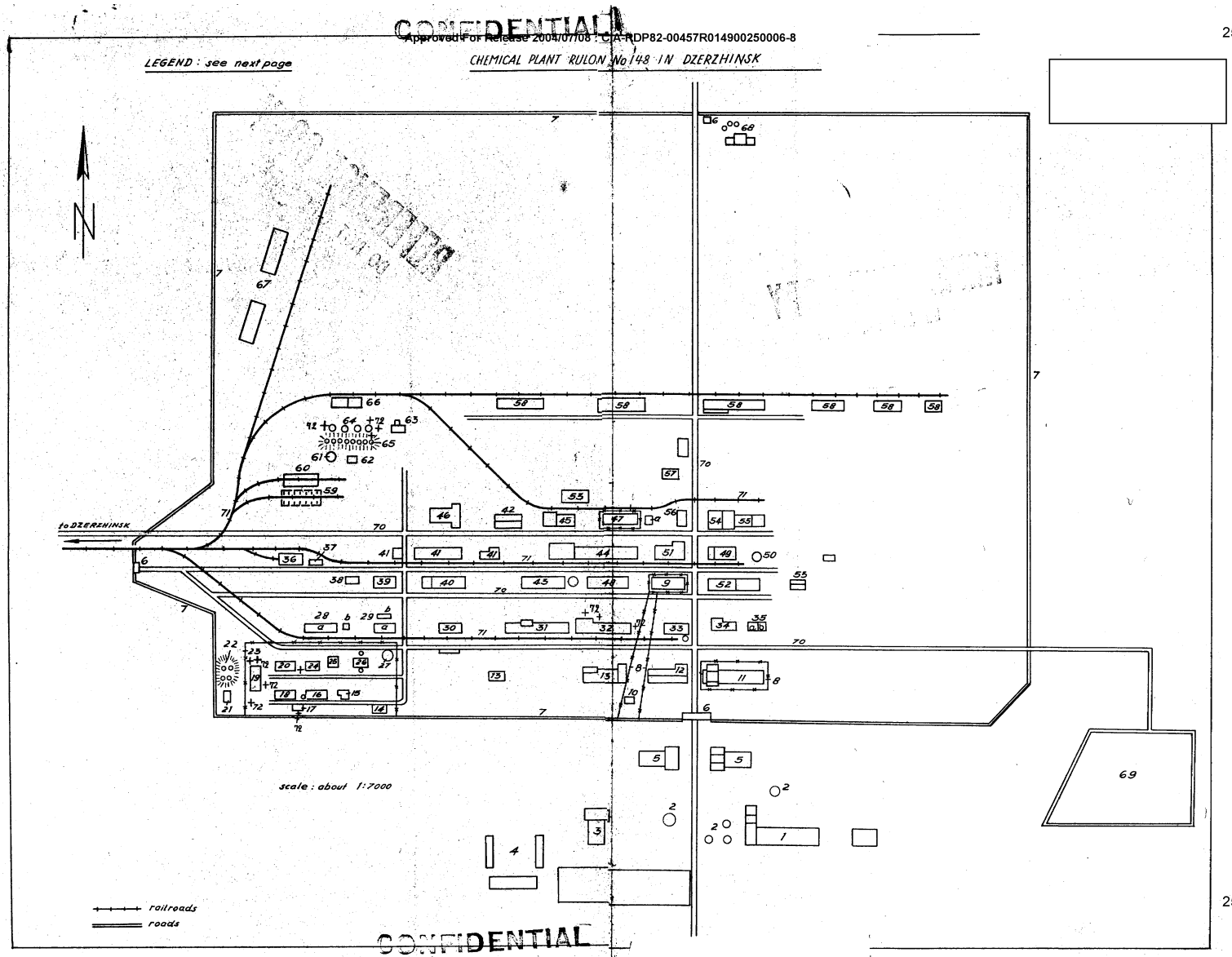
CHEMICAL PLANT RULON No 148 IN DZERZHINSK



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